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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,012	09/15/2003	Jiann-Chen Chen	81439/LPK	2748

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EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,012

Applicant(s)

CHEN ET AL.

Examiner

Marc Jimenez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09152003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-14 and 16-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (6,696,158) in view of Heeks et al. (5,736,250) and Chen et al. (5,716,714).

Chen et al. ('158) teach a high temperature sleeve **16** having an inner diameter adapted to closely fit around an outer diameter of a mandrel in an electrophotographic machine fuser section, a base cushion elastomer (col. 8, lines 62-67) layer **14** around an outside of the sleeve **16**, a primer (col. 9, line 58-60) positioned on the outside of the sleeve **16** to provide bonding between the base cushion **14** and the sleeve **16**, and a layer **12** of cured thermoplastic polymer selected from the group consisting of thermoplastic polyfluorocarbon polymers (col. 5, lines 50-51) and thermoplastic polyfluorocarbon random copolymers around the outside of the base cushion **14**.

Chen et al. ('158) teach the invention cited with the exception of the sleeve being made of nickel and the primer consisting essentially of a saline coupling agent containing epoxies.

Heeks et al. teach a fuser member with a sleeve **4** made of nickel (col. 5, lines 57-59) mounted on a mandrel **6**.

Chen et al. ('714) teach a fuser member with a primer consisting essentially of a saline coupling agent containing epoxies (col. 4, lines 21-37).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have replaced the "stainless steel, steel, aluminum etc." sleeve (col. 5, lines 14-15) of Chen et al. ('158) with a sleeve made of nickel, in light of the teachings of Heeks et al., in order to provide a sleeve material that can withstand high temperatures and is suitably rigid. Furthermore, it is noted that Heeks et al. suggest that the cylindrical core could be made of any suitable metal such as those described in col. 5, lines 57-59. Therefore, because the types of materials Chen et al. describes in col. 5, lines 14-15 and the materials described by Heeks et al. at col. 5, lines 57-59 were art-recognized equivalents at the time of the invention was made, one of ordinary skill in the art would have found it obvious to substitute the sleeve materials described by Chen et al. for the nickel material described by Heeks et al.

Furthermore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Chen et al. ('158) with a primer consisting essentially of a saline coupling agent containing epoxies, in light of the teachings of Chen et al. ('714), in order to provide a primer that can easily bond with metal such as nickel described in col. 3, lines 23-24.

Regarding claims 2 and 4, official notice is taken that it is well known in the art to have used a mandrel made of nickel, in order to provide a material that can withstand high temperatures and is suitably rigid. Furthermore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have selected the claimed material, since it has been held to be within the general skill of a worker in the art to select a known material on the

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basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

Regarding claims 3 and 17, it is noted that Chen ('714) teaches that the thickness of the nickel sleeve is from about 0.001 to about 0.05 inches (col. 3, lines 30-32). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Chen et al. ('158)/Heeks et al. with the sleeve having a thickness from about 0.001 to about 0.05 inches, in light of the teachings of Chen ('714), in order to a nickel sleeve that has a suitable core stiffness (as suggested by Chen ('714) at col. 3, lines 27-28).

Regarding claim 5, official notice is taken that it is well known in the art to provide a tolerance of about 0.001 to about 0.002 inches, in order to provide a close fit between the sleeve and mandrel.

Regarding claims 6-8, Chen ('158) teaches using silicone rubber as the base cushion elastomer layer (col. 8, lines 66-67) and polydimethylsiloxane (col. 8, lines 64-65). Note the fillers in col. 9, lines 1-40.

Regarding claims 9-13, official notice is taken that it is well known in the art to have used the claimed primer materials, in order to provide a suitable primer that provides a secure bond between the nickel sleeve and the base cushion layer. Furthermore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have selected the claimed material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design

choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

Regarding claim 14, Chen et al. ('158) teach the materials claimed in col. 7, lines 6-20.

Regarding claim 16, the patentability of product does not depend on its method of production. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) (citing *In re Pilkington*, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969)). If a product in a product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product is made by a different process. *Id.* citing *In re Marosi*, 710 F.2d 799, 803, 218 USPQ 289, 292-93 (Fed. Cir. 1983); *Johnson & Johnson v. W.L. Gore*, 436 F. Supp. 704, 726, 195 USPQ 487, 506 (D. Del. 1977); see also *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974).

Regarding claim 18, Chen et al. ('158) teach that the base cushion layer has a thickness of about 0.6 to about 50mm (col. 8, lines 58-61).

3. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (6,696,158) in view of Heeks et al. (5,736,250) and Chen et al. (5,716,714) as applied to claim 1 above, and further in view of Chen et al. (6,355,352).

Chen et al. (6,696,158)/Heeks et al. (5,736,250)/Chen et al. (5,716,714) teach the invention cited with the exception of having antimony-doped tin oxide particles.

Chen et al. (6,355,352) teach using antimony-doped tin oxide particles (col. 5, lines 3-5).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Chen et al. (6,696,158)/Heeks et al. (5,736,250)/Chen

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et al. (5,716,714) with antimony-doped tin oxide particles, in light of the teachings of Chen et al. (6,355,352), in order to reduce the temperatures required for curing as suggested by Chen et al. at col. 5, lines 4-5.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (703) 306-5965. The examiner can normally be reached on Monday-Friday between 5:30 a.m.-2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Marc Jimenez". The signature is fluid and cursive, with the first name "Marc" and last name "Jimenez" clearly distinguishable.

Marc Jimenez
Patent Examiner
AU 3726

MJ

September 3, 2004